



BOROUGH OF WHITEHAVEN.



ANNUAL REPORT

OF

J. B. FISHER, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH,

WITH

TABULAR RETURNS OF MORTALITY, &C.,

FOR THE YEAR 1909.



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77, LOWTHER STREET,
WHITEHAVEN,

5th February, 1910.

GENTLEMEN,

In submitting to you my twenty-second Annual Report as Medical Officer of Health for the District, and the sixteenth since the Incorporation of the Borough, I shall adhere to my usual custom of considering in the first place the vital statistics of the Borough during the year 1909, and the comparison of these with the statistics for previous years as shewn in the tables prescribed by the Local Government Board, and in the additional tables which I annex.

In previous reports I have explained that a comparison of the census of 1891 with that of 1901 showed that, notwithstanding a considerable excess of births over deaths in each year, the population had remained practically the same during the ten intervening years, the natural increase of population being almost exactly counterbalanced by emigration. There appears no reason to doubt that this is still going on, and I have accordingly calculated the birth and death-rates for 1909 on an estimated population of 19,320, as in previous years.

On this estimate the five hundred and ninety-five births registered in the Borough during the year represent a birth-rate of 30.8 per thousand of population per annum, which is 1.07 below the average of 31.87 for the ten preceding years. Three hundred and four of the children born during the year were boys, and two hundred and ninety-one girls. Twelve children—seven boys and five girls—were born in the Workhouse. Twenty-nine children were illegitimate, eighteen of these being boys, and eleven girls.

Four hundred and fifteen deaths were registered in the Borough during the year, which is equivalent to a death-rate

of 21.48 per thousand per annum. This is 1.21 above the average of 20.27 for the previous ten years. To ascertain, however, the actual death-rate of the Borough, we must find the nett deaths at all ages and from all causes of persons belonging thereto by excluding "Non-residents," that is, persons brought into the Borough on account of sickness or infirmity, and dying in public institutions there, and including "Residents," that is, persons who have been taken out of the Borough on account of sickness or infirmity, and have died in public institutions elsewhere. Twenty-five deaths of "Non-residents" occurred during the year in the Whitehaven and West Cumberland Infirmary, and the Union Workhouse, and seven deaths of "Residents" occurred in public institutions elsewhere, namely, six in Garlands Asylum, Carlisle, and one in a Nursing Home, Gambier Terrace, Liverpool. The nett deaths, therefore, during the year, amounted to three hundred and ninety-seven, giving a death-rate of 20.55 per thousand per annum, which is 1.51 above the average of 19.04 for the ten preceding years.

Of infants under one year of age there were ninety-one deaths, equivalent to an infantile death-rate of 4.71 per thousand of estimated population per annum, or 0.03 above the average of 4.68 for the ten preceding years. The number of births registered during the year being, as before mentioned, five hundred and ninety-five, the infant death-rate per thousand births was 152.94, which is 6.19 above the average of 146.75 for the previous ten years.

Eighty-three deaths of children between one and five years of age were registered during the year, making with the ninety-one deaths of infants under one year, a total of one hundred and seventy-four deaths of children under five years of age, being at the rate of 9.01 per thousand of estimated population per annum, or 1.69 above the average of 7.32 for the ten preceding years.

There were eighty deaths of persons over sixty-five years of age, giving a senile death-rate of 4.14 per thousand per annum, which is 0.33 below the average of 4.47 for the previous ten years.

From the eight principal zymotic diseases enumerated in Table VI., seventy-seven deaths occurred during the year—fifty-six from Measles, one from Scarlet Fever, six from Whooping Cough, and fourteen from Diarrhœa—which is equivalent to a zymotic death-rate of 3.99 per thousand of estimated population per annum, and is 1.76 above the average of 2.23 for the ten preceding years.

The most notable feature in the vital statistics for the year compared with previous years, is the excessive death-rate of children under five years of age, and that from zymotic disease. The increase in both cases is due to the large number of deaths of children from Measles. This disease appeared in epidemic form during the latter half of the year, and caused no fewer than fifty-six deaths, of which fifty-three were those of children under five years of age. This number of deaths is equal to a death-rate of 2.9 per thousand of the entire population per annum. There is, perhaps, no disease occurring in epidemics in this country which is at once so fatal and so difficult to deal with from the public health point of view, as Measles. Its characteristic infectiousness in its earliest stages, before its true nature can be ascertained, causes it to become alarmingly prevalent with a suddenness seldom seen in other diseases, and once it has broken out amongst a large number of susceptible children our best efforts to check its spread are, too often, futile. The closure of schools in populous districts where the children live in close proximity to one another, and are as much exposed to infection at play as at school, is seldom of much use, whilst the exclusion of particular scholars is rendered of little avail because the mischief is done before they are known to have the disease.

In the present instance it did not appear that school closure would have any beneficial effect in checking the spread of the disease, and exclusion was limited to the children actually affected and those residing in houses in which cases occurred. With a view to mitigating its severity all the elementary schools were thoroughly sprayed with disinfecting fluid during the holidays in August, and again before the end of the year. Arrangements were also made for the regular use of disinfectant solution in the ordinary cleaning of the schools,

The cases notified under the Infectious Disease (Notification) Act during the year numbered seventy-six, compared with an average of one hundred and sixteen per year for the nineteen previous years since the Act came into force. Fifty-five of these were cases of Scarlet Fever, five Diphtheria, fourteen Erysipelas, and two Puerperal Fever.

Seventeen of the cases of Scarlet Fever occurred in children between one and five years of age, thirty-three between five and fifteen years, three between fifteen and twenty-five, and two in persons over twenty-five years of age. The largest number of cases occurred in the months of October, when there were sixteen, and November, when there were thirteen. The remaining cases were distributed in smaller numbers over the other months of the year, the only month during which no case was notified being June. Two cases were imported, the patient in each instance being already ill with the disease before coming to the town, though the nature of the illness had not been diagnosed. In five instances two cases were notified simultaneously in the same house. In one instance the earliest case had been a mild one, and no medical advice was obtained until other children in the same family fell ill one after another. A doctor was then called in who at once notified five of the children as suffering from Scarlet Fever. On visiting the house I found that the youngest child, a year and eight months old, showed symptoms compatible with Scarlet Fever, and as she

had been occupying the same bed as the children who were certainly suffering from that disease, and isolation at home was out of the question, I had all six removed to Bransty Hospital. They all proved to have Scarlet Fever in various stages, and the three youngest were also suffering from Whooping Cough. These three were all very dangerously ill, and one of them, aged four years, had persistent discharge from her ear, which necessitated her remaining in hospital from the 25th October, 1909, until the 8th January, 1910. Of the patients removed to hospital during the year on account of Scarlet Fever, five, who were admitted in September and October during the prevalence of the Measles epidemic, suffered from that disease in addition to Scarlet Fever. This complication of Scarlet Fever with Measles is not uncommon. The usual course of events is for the Scarlet Fever, owing to its shorter period of incubation, to develop first, and to be followed after a longer or shorter interval by the distinctive symptoms and rash of Measles. When the appearance of the latter is delayed until the acute stage of the Scarlet Fever is safely passed, the gravity of the case is not necessarily much increased, but when the acute stage of the one follows too closely on that of the other, or when the two synchronise, the complication becomes somewhat serious, especially in very young patients. The risk of its occurrence causes no little anxiety in hospital management during epidemics of Measles. It then becomes specially imperative to watch all patients very closely for the first appearance of symptoms suggestive of the complication, and to promptly remove all suspicious cases to separate wards in order to obviate the danger of infecting other patients. One boy, aged five years, admitted with Scarlet Fever, developed also Chicken-pox, and one case notified as Diphtheria proved to have Scarlet Fever. These cases also required separate isolation. Altogether, forty-four patients were removed to hospital with Scarlet Fever during the year, and one attendant in the hospital contracted the disease. All but seven had recovered and

been discharged before the end of the year, the remaining seven were convalescent, and have since been discharged.

Five cases of Diphtheria were notified during the year, the ages of the patients being two, twelve, thirteen, twenty-four, and twenty-five years respectively. The houses in which they occurred were carefully inspected to ascertain whether any sanitary defect existed which might have had some relation to the outbreak of the disease. In one case a W.C. in a cellar was not considered satisfactory in situation or condition, and steps were at once taken to have it removed to a more suitable position. Two of the cases were removed to Bransty Hospital, the child aged two, and the boy aged thirteen years. Both were treated with antitoxin serum, and both recovered, though the younger patient was in a very bad condition when admitted to hospital.

Two cases of Puerperal Fever and fourteen of Erysipelas were notified during the year, but none of these was found to be associated with any sanitary defect in connection with the houses in which they occurred, or in the surrounding premises. One case of Erysipelas, and both cases of Puerperal Fever, terminated fatally.

At the end of the year the Borough was almost free from zymotic disease. There was no case of Scarlet Fever under treatment outside the hospital, and the seven patients remaining in hospital were convalescent, as before mentioned. One patient suffering from Diphtheria, notified in December, was still under treatment at her own home, but has since recovered, and no further cases have arisen from this one. The epidemic of Measles had subsided, the disease having in fact already attacked practically all susceptible children. A few cases of Mumps and Whooping Cough amongst young children existed, but there was no general prevalence of either.

In all cases in which notifications have been received, immediate steps have been taken as in previous years to secure adequate isolation and disinfection, in order to prevent the spread of the disease. The routine practice is for the Sanitary Inspector to at once visit the house in which the case has occurred. If the case is one of Scarlet Fever, as the majority of the notified cases have been during the past year, he ascertains the number of persons in the house, their ages, the school attended by the children, if any, the source of milk supply, the available accommodation for isolation at home, and whether such arrangements can be made for nursing as will give a reasonable chance of avoiding the occurrence of further cases. He reports to me the result of his enquiries, and if there appears to be any necessity for so doing I make a personal visit to satisfy myself in the first place as to the necessity or otherwise of removal of the patient to hospital. When the services of the Inspector are not immediately available, or the case is one of urgency, I visit the house at once. When removal to hospital is desirable we seldom experience any difficulty in obtaining the consent of the patients or their friends. In many cases, indeed, where isolation at home would be quite possible, they prefer removal to hospital, and are quite willing to pay for their accommodation there in order to avoid the expense and trouble involved in isolation at home. The Sanitary Inspector supervises all removals and disinfects the rooms the patients have occupied, and all articles liable to retain infection. If the patient is treated at home, printed instructions as to the precautions necessary are supplied in all cases, and they are visited from time to time to see that the instructions are understood and carried out. Disinfectants are also supplied gratuitously where necessary. After the immediate necessities of the case have been met, enquiries are made as to the possible source of infection, and, if several cases have occurred in connection with any particular school, I visit it and examine any children who have recently been absent, to see if I can find any evidence

of mild and undetected cases of Scarlet Fever. In some cases I visit the homes of children who are absent from school without any satisfactory explanation of their absence, and when no doctor has seen them, for such unrecognised cases have undoubtedly played an important part in the production of epidemics in the past. During the last year, however, I have not met with any. In cases of Diphtheria a similar course of action is adopted, special attention being in these cases paid to the sanitary conditions of the house where they occur, as previously stated. In cases of Puerperal Fever and Erysipelas also the receipt of a notification is made the occasion of a careful examination of the premises, to find out whether there be any sanitary defect.

In connection with the cases of Puerperal Fever, I may say that the administration of the Midwives' Act is in the hands of the County Council; the Medical Officer of Health of the Borough is the Supervising Officer and visits the registered midwives in the Borough and reports quarterly to the County Council.

The Notification of Births Act, 1907, is not in force in the Borough, and there is no Health Visitor.

Notification of Pulmonary Tuberculosis is not compulsory in the Borough, but three cases were notified during the year under the "Public Health (Tuberculosis) Regulations, 1908." These were visited at their homes and supplied with printed information as to the communicability of the disease and the precautions necessary in the interest of the patient and of persons brought in contact with him. One patient was also reported who had been admitted to the Workhouse from another district in the Union.

Before leaving the subject of infectious disease and the measures adopted to prevent its spread, including the isolation in hospital of cases that would otherwise be a source of danger

to the public health, I feel that I ought not to omit to mention what I regard as a coming danger for which we are not adequately prepared. I refer to the hospital isolation of Smallpox. There can be no doubt that this is pre-eminently a disease in which hospital treatment is required, and it is generally recognised that the segregation of Smallpox patients in a hospital in which patients suffering from other diseases are received, is not a proceeding to be commended, or one which can be adopted with safety to other patients. The Local Government Board have for some time refused to sanction loans for isolation hospitals so used, and have made it a condition in sanctioning loans for hospitals for other infectious diseases that they must not be used for Smallpox cases. Smallpox has, in recent years, been so little in evidence, and such cases as have occurred have so seldom led to serious epidemics, that the terrible havoc wrought by such epidemics amongst an unprotected population is not in the least realised by the present generation.

The few sporadic or imported cases numbering ten in all, that have occurred in Whitehaven since the erection of the present hospital at Bransty, have been isolated there. All persons known to have been in contact with the patients have been re-vaccinated, and no spread of the disease has occurred. But Whitehaven has hitherto been well protected by vaccination. There can be no doubt, however, that here as well as elsewhere, there is growing up a population to a large extent unprotected by vaccination. Recent modifications with regard to the enforcement of vaccination by which increased facilities, not to say inducements, are given to parents to neglect the vaccination of their children, cannot be regarded without alarm by all who have had any experience of this terrible and loathsome disease. Outbreaks such as have occurred here will, in future years, not be so readily stamped out. Every case being surrounded by and brought in contact with persons unprotected by vaccination will be apt to become the starting point of a fresh outbreak. In view of these facts, I consider it the

duty of every Sanitary Authority to make provision beforehand for the result which may confidently be expected sooner or later. I do not advocate the erection by every Local Authority of an elaborate hospital for Smallpox, but if adjoining Authorities were to combine, a suitable hospital might be provided to serve for several districts. A very moderate provision would suffice in the way of a permanent building to receive the first cases, if the site were such that light and quickly erected buildings could be added as occasion required.

In compliance with the request of the Local Government Board, that the Medical Officer of Health should state in his Annual Report for the year 1909, "what arrangements are in force for the discharge of the duties of School Medical Officer and for the medical inspection of children in public elementary schools in the district," I may explain that the Medical Officer of Health is also the School Medical Officer appointed by the Education Committee for the Borough, in accordance with Section 13 of the Education (Administrative Provisions) Act, 1907. The children in the elementary schools have been inspected as required by the Board of Education. The work done and results arrived at up to December 31st, 1908, have already been reported on, and the Annual Report for 1909 will be completed at an early date. In my Annual Report for 1908, reference was made to the desirability of appointing a School Nurse and Health Visitor, to act in the former capacity under the Education Committee, and in the latter under the Street and Sanitary Committee of the Town Council, with special reference to the Notification of Births Act, 1907. The

Town Council had already passed a resolution to adopt that Act, but the sanction of the Local Government Board was withheld, because in the absence of a Health Visitor no adequate use could be made of the information afforded by the Act.

The Local Government Board also specially desire to be informed in this Report as to the arrangements made by the Council for the inspection of meat, the number of slaughter-houses, the number of carcasses found to be diseased, the action taken in these cases, and whether there is an Inspector with a special certificate in meat inspection in the District. There are eleven registered slaughter-houses in the Borough. Ten of these are private slaughter-houses, situated in different parts of the Borough, and each occupied by a single butcher. One is of a semi-public character, in as much as it consists of twelve distinct lock-up stalls. Three of these stalls are at present unoccupied. The other nine stalls are let to different butchers, so that nineteen butchers have each a separate place in which animals are slaughtered for human food. I have, in previous Reports, pointed out the difficulty of supervising so many different places, situated as some of them are at opposite ends of the district, and have repeatedly advocated the erection of a public slaughter-house by the Corporation. The Sanitary Inspector does not possess a special certificate in meat inspection, but is particularly well qualified to perform the duties of a meat inspector, having served his time to, and been engaged for many years in, the business of a butcher. He visits the Auction Mart where many of the animals are bought by the butchers; makes frequent visits to the slaughter-houses,

especially on killing days, and inspects the meat exposed for sale on the different stalls on Market days, when he is also engaged in collecting the market tolls. The animals sent to the Auction Mart are also inspected by a Veterinary Surgeon before being offered for sale. I have in my two last Annual Reports referred to the formation of an insurance fund in connection with the local Auction Mart, the effect of which is that all bovine animals passed by the Veterinary Surgeon and sold for £8 and upwards, are guaranteed, and in the event of their being found to be tuberculous when slaughtered, and the whole or part of the carcase being condemned by me as unfit for human food, the butcher is recouped for any loss he would otherwise have sustained. During the past year I have found six carcasses affected with tuberculosis. In two cases I condemned the whole carcase as unfit for human food, in four cases the disease being localised and less advanced, only the affected portions were condemned. In each case the carcase, or the portion I considered unfit for human food, was cut up and conveyed to the refuse hopper under the immediate supervision of the Sanitary Inspector. In all these cases the animals had been bought at the Auction Mart by respectable butchers at a fair price, and were mostly in good condition, presenting no appearance of disease during life. There was no attempt at concealment, or to offer them for sale when they were found to be diseased, so that no question of legal proceedings could arise. If, however, such animals had been bought elsewhere without any guarantee, and perhaps at "slink" prices, it would be rash to assert that they might not have been so "stripped" in some of the slaughter-houses in the Borough as to permit of a large

quantity of diseased and unwholesome meat being offered for sale, with a reasonable chance of escaping detection, in spite of the utmost vigilance on the part of the sanitary officials. It is the possibility of such an occurrence that requires to be guarded against, and I am satisfied that this can only be done effectually by having a public slaughter-house, which could be managed under suitable regulations, ensuring that the carcase of every animal slaughtered therein should be inspected before being cut up and exposed for sale. The slaughter-houses are visited from time to time by the Sanitary Inspector and myself, apart from visits for the inspection of carcasses, or on killing days, to see that they are kept in a cleanly condition, and in accordance with the regulations relating thereto. Six notices requiring the lime-washing of different slaughter-houses were served during the year, and a few in connection with accumulations of offal.

The Registered Cowsheds in the Borough at present number twenty-three, in which at the end of the year there were two hundred and twenty-two dairy cattle belonging to thirteen cowkeepers. No new cowsheds have been registered during the year, and three formerly registered have ceased to be used for dairy cattle. The only formal notices required during the year were twelve for the limewashing of byres, and a few for the removal of manure. In addition to the visits paid by the Sanitary Inspector and myself to the cowsheds, the Dairy Cattle in the Borough are regularly inspected by the Veterinary Surgeon appointed for the purpose, who makes a Quarterly Report

to the Contagious Diseases (Animals) Act Committee of the Town Council, on the health and condition of the animals. Any animals found by him to be suffering from tuberculosis are destroyed.

There are four Common Lodging Houses in the Borough which are daily visited by an Inspector, appointed for the purpose, who reports to the Lodging Houses Committee the result of his inspection. The Sanitary Inspector and myself visit them from time to time as required.

In September, I reported to the Street and Sanitary Committee thirty-three houses and tenements as unfit for human habitation in their present condition. Some of these have since been closed by the owners. In the case of others in which I recommended re-construction, so as to render them fit for habitation, and in which notice was served by order of the Town Council, the notice served has been invalidated by the Housing, Town Planning, &c. Act, 1909, and the amended procedure provided by that Act will have to be adopted.

In my last Annual Report I referred to the difficulty which had arisen with regard to connecting the private drains at Lonsdale Place with the new main sewer laid by the Town Council. The necessary work has been carried out, and the connections made during the past year.

Systematic inspections of those parts of the Borough in which insanitary conditions were likely to arise were made

during the year by the Sanitary Inspector and myself, together and separately. In addition to a large number of minor sanitary defects revealed by the inspections and remedied on verbal notice being given to the persons responsible, six hundred and eighteen written notices were served for the abatement of nuisances or the removal of insanitary conditions. In forty-eight cases no attention was paid to these Inspector's notice, and statutory notice had to be given by order of the Council. The statutory notice was in all cases complied with, and legal proceedings were not necessary in any case. At the end of the year the sanitary condition of the District was satisfactory, very few of the Inspector's notices remained unattended to, and these had been recently issued and were soon afterwards complied with. A summary of the work done in this department is given in one of the accompanying tables, but this does not of course include the smaller matters concerning which verbal notice only was required.

The usual inspection of ships arriving from foreign ports, and some from home ports, were made during the year. In one vessel a fireman, who had been taken on at Rouen, was found to be too ill to perform his duties. On examining him I found that he was suffering from general debility, probably due to privation, and not to any infectious disease. He was a German, unable to speak English, but from what I could gather he had been out of work for a considerable time before signing on, and his condition was evidently due to the hardships he had then undergone. In all other cases, the health of the crews

was satisfactory. The caravans and dwelling-vans which accompany the travelling shows visiting the town at fair time were also visited, but no case of infectious disease was found in any of them.

The "Factory and Workshop Act, 1901," has been administered in the Borough during the year 1909, as in previous years. There are now eighty-five workshops on the register which the Council is required to keep, being four more than in the previous year. Three dressmaking and millinery, one clogger's and one blacksmith's workshop have been added to the list during the year 1909, whilst one workshop bakehouse has ceased to be used as such. All the workshops have been visited by the Sanitary Inspector and myself as occasion required, and have been found on the whole to be kept in a satisfactory condition. In seven cases defects of cleanliness were discovered, such as want of lime-washing and the like, notices were served on the persons responsible and at once complied with. Two cases of overcrowding were detected, but were of a merely technical and temporary character, and were not repeated after attention had been called to them. Four cases of defective or insufficient sanitary accommodation were dealt with. Six notices were received during the year from H.M. Inspector of Factories of sanitary defects observed by him, remediable under the Public Health Acts, but not under the Factory and Workshop Act. Notice was served in each case. In five of the cases the notice was complied with, and the action taken, and the result reported to the Inspector as required by the Act. In the sixth case the necessary work was in hand,

but not completed, at the end of the year. The abstract of the Act was found to be affixed in all workshops in which females were employed, as required by the Act. The only provision of the Act which continues to be persistently ignored by many employers is that requiring that all persons employing outworkers in certain specified trades, including the making of wearing apparel, shall send twice a year to the Local Authority a list of all such outworkers employed by them. During the past year only two employers sent the two lists prescribed. Two employers sent one list each, and many who ought to have done so sent no list at all. I have in previous reports pointed out the importance of these lists as enabling the sanitary officers to prevent such work being done in unwholesome or insanitary houses, or houses in which infectious disease exists. All outworkers, whose names and addresses appear on the lists sent in, are visited by the Sanitary Inspector or myself, to see that the work entrusted to them is carried on under satisfactory sanitary conditions, but, unless the lists are sent to the Local Authority more regularly than has hitherto been done, it is obviously quite possible that many outworkers are under no sort of supervision at all. In my last Annual Report I suggested “ that a notice should be sent by the Town Council to all persons believed to be employing out-workers, plainly stating “ the requirements of the Act, and the dates on which lists “ are to be sent to the Town Council ; and that along with “ this notice forms should be supplied on which lists of out- “ workers could be sent to the Council, in the same way as forms “ are now supplied for the notification of cases of infectious

“disease.” I venture to repeat this suggestion, because I think it likely to produce the best results with the least friction. The only alternative seems to be the prosecution of employers who fail to send lists regularly, and as the omission is probably due in most cases to oversight, and not to wilful neglect, I think the course I have indicated might well be tried in the first instance. It would, at any rate, show a desire to act considerately towards employers, and any subsequent legal proceedings that might become necessary could not then be regarded as arbitrary or avoidable on the part of the Town Council.

I am, Gentlemen,

Yours obediently,

J. B. FISHER,

Medical Officer of Health.

To the Town Council of

The Borough of Whitehaven.

TABLE I.—BIRTHS IN BOROUGH IN 1909.

Number of Births.	Birth-rate per 1000 of population per annum.
595	30·8

COMPARISON WITH TEN PREVIOUS YEARS.

1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
30·05	31·06	35·45	32·35	34·31	33·69	30·74	30·74	29·09	31·21	30·8

TABLE II.—DEATHS AT ALL AGES.

Number of Deaths.	Death-rate per 1000 of population per annum.
397	20·55

COMPARISON WITH TEN PREVIOUS YEARS.

1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
16·99	22·36	19·66	18·89	19·09	20·1	17·7	18·46	17·75	19·43	20·55

TABLE III.—DEATHS UNDER ONE YEAR OF AGE.

Number of Deaths.	Death-rate per 1000 of population per annum.	Infant Death-rate per 1000 Births registered.
91	4.71	152.94

COMPARISON WITH TEN PREVIOUS YEARS.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Per 1000 of estimated Population.	4.35	5.59	4.97	4.09	5.33	5.07	4.45	4.76	3.67	4.5	4.71
Per 1000 Births Registered.	144.83	180	140.15	126.4	155.35	150.53	144.78	154.88	126.33	144.28	152.94

TABLE IV.—DEATHS UNDER FIVE YEARS OF AGE.

Number of Deaths.	Death-rate per 1000 of population per annum.
174	9.01

COMPARISON WITH TEN PREVIOUS YEARS.

1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
6.11	11.33	6.98	7.09	7.24	7.6	6.15	7.29	6.05	7.4	9.01

TABLE V.—DEATHS OF PERSONS OVER SIXTY-FIVE YEARS OF AGE.

Number of Deaths.	Death-rate per 1000 of population per annum.
80	4·14

COMPARISON WITH TEN PREVIOUS YEARS.

1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
3·11	4·14	4·29	5·12	5·43	5·48	5·22	4·09	4·04	3·78	4·14

TABLE VI.—DEATHS FROM EIGHT PRINCIPAL ZYMOTIC DISEASES IN 1909.

Smallpox	...	...	...	...	...	...	...	0
Measles	...	...	...	...	...	...	...	56
Scarlet Fever	...	...	...	...	...	...	...	1
Diphtheria	...	...	...	...	...	...	...	0
Whooping Cough	...	...	...	...	...	...	...	6
Typhus Fever	...	...	...	...	...	...	...	0
Enteric Fever	...	...	...	...	...	...	...	0
Diarrhœa	...	...	...	...	...	...	...	14
Total Number of Zymotic Deaths								77
Zymotic Death-rate per 1000 of population per annum								3·99

COMPARISON WITH TEN PREVIOUS YEARS.

1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
2·07	5·69	1·81	1·55	1·55	2·38	1·96	2·12	1·55	1·6	3·99

TABLE VII.—OTHER CHIEF CAUSES OF DEATH
IN 1909.

Phthisis	...	...	...	...	...	20
Other Tubercular Diseases	...	...	...	...	...	21
Cancer—Malignant Disease	...	...	...	...	...	11
Bronchitis	...	...	...	...	...	49
Pneumonia	...	...	...	...	...	27
Premature Birth	...	...	...	...	...	13
Heart Diseases	...	...	...	...	...	35
Accidents	...	...	...	...	...	11
All other causes	...	...	...	...	...	133
						320
Eight Zymotic Diseases, as above						77
Total Deaths Registered in the Borough in 1909						397

TABLE VIII.—CASES OF INFECTIOUS DISEASE
NOTIFIED DURING THE YEAR 1909.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							No. of Cases removed to Hospital.
	At all Ages.	At Ages.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and up-wards.	
Smallpox	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup) ..	5	...	1	2	1	1	..	2
Erysipelas	14	2	...	...	...	11	1	...
Scarlet Fever	55	...	17	33	3	2	...	45
Typhus Fever	...	...	..	...	...	...	...	...
Enteric Fever	..	...	...	...	...	..	...	...
Relapsing Fever	...	...	...	..	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...
Puerperal Fever	2	...	...	...	...	2	...	.
Plague	...	...	...	...	...	...	...	..
Totals	76	2	18	35	4	16	1	47

Bransty Hospital for Infectious Diseases is situated within the Borough, and provided by the Corporation. There are twenty-four beds, and four different infectious diseases can be concurrently treated. The Whitehaven Union Workhouse is also situated within the Borough.

TABLE IX.—VITAL STATISTICS OF BOROUGH DURING
1909 AND PREVIOUS YEARS.

Year.	Popula- tion estimat'd to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institu- tions in the District.	Deaths of Non- resid'nts regis- tered in Public Institu- tions in the District.	Deaths of Resi- dents regis- tered in Public Institu- tions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		No.	Rate. *	Under 1 Year of age.		At all Ages.					No.	Rate. *
				No.	Rate per 1,000 Births regist'd	No.	Rate. *					
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1899.	19,300	580	30·05	84	144·83	334	17·31	15	6	...	328	16·99
1900.	19,320	600	31·06	108	180	454	23·49	48	22	...	432	22·36
1901.	19,324	685	35·45	96	140·15	397	20·54	60	17	...	380	19·66
1902.	19,320	625	32·35	79	126·4	396	20·49	77	32	1	365	18·89
1903.	19,320	663	34·31	103	155·35	404	20·91	79	35	...	369	19·09
1904.	19,320	651	33·69	98	150·53	406	21·01	76	20	...	386	20·1
1905.	19,320	594	30·74	86	144·78	372	19·25	80	31	1	342	17·7
1906.	19,320	594	30·74	92	154·88	386	19·98	94	40	7	353	18·46
1907.	19,320	562	29·09	71	126·33	377	19·51	106	36	2	343	17·75
1908.	19,320	603	31·21	87	144·28	391	20·24	67	18	...	373	19·43
Averages for years 1899-1908	19,318·4	615·7	31·869	90·4	146·753	391·7	20·273	70·2	25·7	1·1	367·1	19·043
1909.	19,320	595	30·8	91	152·94	415	21·48	66	25	7	397	20·55

* Rates in columns 4 and 8 calculated per 1,000 of the estimated gross population. Rates in column 13 calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in public institutions.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The “Public Institutions” to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

The Institutions within the District receiving sick and infirm persons from outside the District are (1)—Whitehaven and West Cumberland Infirmary; (2)—Whitehaven Union Workhouse.

The Institutions outside the District which have received sick and infirm persons from the District during the year 1909 are (1)—Garlands Asylum, Carlisle; (2)—Nursing Home, Gambier Terrace, Liverpool.

Bransty Hospital for Infectious Diseases receives only persons from the District.

Area of District in Acres	1,743	} At Census of 1901.
Total Population, at all ages	...	...	...	...	...	...	...	19,324
Number of Inhabited Houses	...	...	...	...	...	...	...	3 959
Average Number of Persons per house	...	...	...	...	...	...	...	4·88

TABLE X.—CAUSES OF, AND AGES AT, DEATH
DURING THE YEAR 1909.

Causes of Death.	Deaths at the subjoined Ages of "Residents," whether occurring in or beyond the District.							Total Deaths in Public Institu- tions in the District
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	
Smallpox ... ..	...	...	...	...	..	...	...	..
Measles	56	12	41	3	...	...	...	...
Scarlet Fever .. .	1	...	...	1	...	...	...	...
Whooping Cough ...	6	2	4	...	...	...	...	...
Diphtheria and Mem- branous Croup...	...	...	...	...	...	...	...	...
Croup .. .. .	...	...	...	...	...	...	..	...
Fever { Typhus ... ..	...	...	..	...	..	...	...	...
{ Enteric .. ..	...	...	...	...	...	...	...	...
{ Other continued	...	...	...	...	..	...	...	...
Epidemic Influenza ...	...	...	...	...	...	...	...	...
Cholera .. .. .	...	...	..	..	...	...	...	...
Plague ... .. .	...	...	...	...	...	...	...	...
Diarrhœa	14	9	5	..	...	...	...	...
Enteritis	4	4	...	...	...	...	...	..
Gastritis	1	...	...	...	...	..	1	...
Puerperal Fever .. .	2	...	...	...	..	2	..	...
Erysipelas	1	...	...	...	...	...	1	1
Phthisis	20	...	...	2	4	13	1	1
Other Tubercular Diseases	21	4	9	2	2	4	...	2
Cancer, Malignant Disease	11	...	...	...	...	9	2	4
Bronchitis... .. .	49	9	8	1	...	10	21	12
Pneumonia	27	4	6	1	2	12	2	6
Pleurisy ... .. .	...	..	...	...	...	...	...	...
Other Diseases of Res- piratory Organs ...	1	...	...	...	...	1	...	...
Alcoholism	4	...	...	..	...	4	...	2
Cirrhosis of Liver }								
Venereal Diseases ...	3	1	...	...	1	1	...	1
Premature Birth .. .	13	13	...	...	...	...	...	...
Diseases and Accidents of parturition	2	...	...	...	2	...	...	1
Heart Diseases	35	...	...	1	1	21	12	3
Accidents	11	..	3	..	1	5	2	9
Suicides	1	...	...	..	...	1	..	...
Congenital Defects ...	...	...	...	..	...	..	..	..
All other causes .. .	114	33	7	3	3	30	38	24
All causes	397	91	83	14	16	113	80	66

TABLE XI.—INFANTILE MORTALITY DURING
THE YEAR 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
Common Infectious Diseases.	Smallpox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	...	...	2	1	...	2	4	3	12
	Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria : Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough ...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	2
Diarrhoeal Diseases.	Diarrhoea, all forms ...	...	...	...	...	...	...	1	1	4	...	2	...	1	...	...	...	9
	Enteritis, Muco-enteritis, } Gastro-enteritis, }	...	...	...	...	...	...	1	...	1	1	...	...	...	...	1	...	4
	Gastritis, Gastro-intestinal Catarrh }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wasting Diseases.	Premature Birth ...	6	2	1	2	11	1	1	...	...	...	...	...	...	...	...	...	13
	Congenital Defects ...	3	...	1	...	4	...	...	...	...	...	...	...	...	...	...	...	4
	Injury at Birth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-milk ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus }	2	2	1	...	5	3	1	1	...	...	...	...	...	...	...	1	11
Tuberculous Diseases.	Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous Peritonitis: } Tabes Mesenterica }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Tuberculous Diseases }	...	...	...	...	...	...	1	...	...	...	1	...	1	1	...	...	4
Other Causes.	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
	Meningitis (not Tuberculous) }	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
	Convulsions ...	...	1	1	...	2	1	...	4	3	1	1	1	1	1	...	1	15
	Bronchitis ...	...	...	...	...	...	...	...	1	2	...	...	...	...	2	2	2	9
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia ...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	1	4
	Suffocation, overlying ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other causes ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
All Causes { Certified ...		10	4	3	2	19	6	5	4	10	5	5	5	3	6	8	9	85
{ Uncertified ..		1	1	1	...	3	1	...	1	...	1	...	...	...	...	...	...	6

Births in the year :—Legitimate, 566 ; Illegitimate, 29.

Infant Deaths during the year :—Legitimate, 83 ; Illegitimate, 8.

Deaths from all Causes at all Ages, 397.

Population estimated to middle of 1909, 19,320.

TABLE XII.—ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901, DURING THE YEAR 1909.

1.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

	NUMBER OF		
	Inspections.	Written Notices.	Prosecutions.
Factories	17	6	...
Workshops	116	10	...
Workplaces	9	...	...
Total	142	16	Nil.

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.

	Found.	Remedied	Referred to H.M. Inspector.	Prosecutions.
Want of Cleanliness	7	7	...	...
Overcrowding	2	2	...	...
*Sanitary Accommodation—				
Insufficient	1	1	...	..
Unsuitable or Defective	2	2	...	...
Not Separate for Sexes	1	1	...	..
Total	13	13	Nil.	Nil.

* Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the Town Council. Water Closets are provided for persons employed in Workshops, and separate accommodation for the sexes enforced.

3.—HOME WORK.—OUTWORKERS' LISTS, SECTION 107.

Nature of Work.	LISTS RECEIVED FROM EMPLOYERS.				Inspections of Out- workers' premises.
	Sending twice a year.		Sending once a year.		
	Lists.	Outworkers.	Lists.	Outworkers.	
Making and Repairing of Wearing Apparel ...	4	12	2	5	20

TABLE XII.—CONTINUED.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the Year.

Nature of Business.	No. of Work-shops.	Number of Persons employed.		
		Male.	Female.	Total.
Dressmakers and Milliners	19	...	95	95
Bakehouses	11	5	33	38
Tailors	9	48	4	52
Joiners	7	32	...	32
Cloggers	9	35	...	35
Boot and Shoemakers	2	5	...	5
Dealers in Cycles and Motors	4	12	...	12
Braziers and Tinsmiths... ..	2	8	...	8
Saddlers	2	16	9	25
Tallow Chandlers	2	6	...	6
Bacon Washer	1	2	...	2
Plumbers	7	44	...	44
Coach Builders	2	9	...	9
Aerated Water Maker	1	3	...	3
Hosier	1	...	2	2
Blacksmiths	2	7	...	7
Builder	1	22	...	22
Grease Manufacturer	1	3	...	3
Dye Works	1	1	5	6
Upholsterer	1	3	...	3
Total	85	261	148	409

5.—OTHER MATTERS.

CLASS.		Number
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act.	Notified by H.M. Inspector...	6
	Reports of action taken sent to H.M. Inspector ...	5

TABLE XIII.—Shewing the Number of Registered Workshops and of persons employed therein during each year since the “Factory and Workshop Act, 1901,” came into operation on 1st January, 1902.

Year.	No. of Workshops.	Number of Persons employed.		
		Male.	Female.	Total.
1902	79	212	153	365
1903	83	202	126	328
1904	80	200	143	343
1905	75	156	138	294
1906	75	188	158	346
1907	82	206	142	348
1908	81	220	132	352
1909	85	261	148	409

SUMMARY OF SANITARY INSPECTOR'S REPORT FOR 1909.

Defective Roofs and Walls causing Dampness	...	...	6
„ Ventilation of Houses (Opening Sashes provided)	...	...	26
„ Rain Water Spouts (2 disconnected from Sewer)	...	...	11
„ Water Supply	...	...	4
„ Water Taps and Pipes...	...	...	19
„ Sink Connections	...	...	3
„ Gully Traps in Courts and Yards	...	...	10
„ and Choked Drains	...	...	70
„ Paving and Channelling in Courts	...	...	47
„ Ashpits	...	...	1
„ Urinals	...	...	1
„ Middensteads	...	...	8
Accumulations of Manure and other Insanitary Conditions in connection with Stables, Cowsheds, and Slaughter Houses			18
W.C.'s in Insanitary Condition (Fittings Defective, &c.)	...	...	164
Additional W.C.'s provided	..	...	2
Houses and Premises in Dirty and Insanitary Condition	...	...	77
Dwelling-houses Overcrowded	...	...	14
Overcrowding in Workshops	...	...	2
Notices for Lime-washing of Courts	...	...	48
„ „ Slaughter Houses	...	...	6
„ „ Cowsheds	...	...	12
„ „ Workshops	...	...	4
Miscellaneous Nuisances	...	...	67
Ships from Home and Foreign Ports Inspected	...	...	17
Unsound Meat Condemned (2 whole carcasses of Beef, portions of 4 carcasses)	...	...	6

